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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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General

- The steel mill was located on the Orotukan River, across from the town of Orotukan (N 62-16, E 151-40). A wooden bridge connected the mill with the town. The mill was built before World War II, perhaps around 1938. It made spare parts for mining equipment and tractors out of scrap iron; no iron ore was processed there. The mill served the whole region of Kolyma and received also some orders from the Chukotskiy Peninsula. The mill was known as the Mining Equipment Plant (Gornobogatitelnoye Oborudovaniye Zavod - GOOZ).

the Orotukan Steel Mill was the largest steel mill in the whole Kolyma (Dalstroy) region. There is only one other steel mill, a small one which has only a one-ton capacity in Magadan. The Orotukan mill used oil for power; the Magadan mill has an electrical furnace. The Orotukan mill employed about 2,500 workers, including some 600 forced laborers.

legend to sketch is on page 6.

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Organization and Production

- The director of the steel mill was Grishin (fnu). The chief engineer was Kon (fnu). the following sections: the foundry, the cast iron shop, the compressor shop, the mechanical assembly shop, the machine tool shop, the instrument repair shop, the boiler shop, the electrical repair

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(Note: Washington distribution indicated by "X"; Field distribution by "Z")

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shop, the oxygen shop, and the laboratory.

3. The foundry (staliliteyny tsekh) was headed first by Khayd Baum, [] until 1952. He was succeeded by Kozlov (fnu), who had been head of the cast iron section, in 1953. The foundry had about 200 workers, half of them forced laborers. The foundry was equipped with a Martin open-hearth furnace which produced 18 tons of steel five or even six times in 24 hours, i.e., a total of 90 to 108 tons. The molten steel was moved by a crane to the forms in order to make tractor wheels, excavators, ball mill parts (sharovaya melnitsa), axles, pumps, and other parts. The mill could make all the parts needed for a tractor except the engine. The foundry had two cranes, one of 10 tons, the other of 20 tons' capacity. 25X1
4. The capacity of the Martin furnace in the Orotukan Steel Mill was originally ten tons. It was twice rebuilt []. The first reconstruction in May 1951 increased the capacity of the Martin furnace to 12-13 tons. The second reconstruction in April 1952 brought it up to 18 tons. Both reconstructions were designed by Engineer Kon, who was awarded a prize of 25,000 rubles in 1952. The rebuilding of the Martin furnace was done with Dinas brick, each brick weighing three to five kilograms. [] 25X1
[] the Martin furnace at Orotukan established a record for the USSR. [] this furnace had produced some 1,900 tons without requiring repairs. All the mill engineers were awarded premiums. 25X1
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5. The cast iron shop (chugunoliteyny tsekh) was headed by Kozlov until 1953. It was smaller than the foundry and had about 150 workers, including some 20 forced laborers. It was equipped with a blast furnace (domennaya pech) which normally yielded once in 24 hours one and a half to two tons of pig iron. The shop had two smaller cranes, one of two and a half tons, the other of four tons. The shop manufactured many parts for tractors, machine tools, and excavators.
6. The compressor shop was attached to the foundry and the cast iron sections. It produced the compressed air needed for the Martin furnace, the blast furnace in the cast iron section, and for the boiler shop.
7. The mechanical assembly shop (mekhano-sbornyy tsekh) had about 250 workers, including some 120 forced laborers and about 130 free workers, most of them being ex-prisoners who had stayed on. [] The shop's equipment consisted of some 150 machine tools, grinders, cutters, etc., which were of American, German, and Soviet origin. Some machine tools came from Cincinnati. Among the Soviet machine tools, [] several which were marked DIP-200, and others which came from the Voroshilov Zavod in Minsk. The work of the shop consisted mostly in finishing the parts produced in the foundry and the pig iron shops and in assembling them. 25X1
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8. The machine tool repair shop (tsekh-remont-stanka - TsRS) was headed by Toporkov (fnu), an ex-prisoner, and employed about 120 workers, 80 prisoners and 40 free workers. It was equipped with some 60 machine tools used to repair or refinish parts.
9. The instrument repair shop (remont-instrumentalny tsekh - RITs) made or repaired all instruments which were needed in the steel mill, such as compressors, hammers, dies, and punches, as well as instruments ordered by outside installations. [] 25X1
[] which had about 100 workers, half of them forced laborers. 25X1
10. The boiler shop (kuznechno-kotelny tsekh) employed 400-500 workers, among them some 150 prisoners. [] It was equipped 25X1

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with five steam forge hammers (paravoy molot) of the following sizes: one five-ton hammer, two three-ton hammers, one two-ton hammer, and one one-ton hammer. There were also four boilers which provided the steam for the hammers. In this shop many parts were made for tractors and other heavy equipment. Attached to that shop were steam pumps which sent the steam through the whole plant for heating purposes.

11. The electrical workshop (elektro-tsekh) made dynamos, switches, distributors, transformers, and other electrical equipment. Head of the shop was unknown. Only a few prisoners worked there, about five or six of them; the rest, about 300, were free workers. This shop was divided into three sections. In the first, where they received rolls of copper wire, they worked the wire down to the correct size and had machine tools for pressing it. The second section was the transformer shop, and the third made insulation band.
12. The oxygen shop (kislород-stantsiya) made oxygen for the use of the factory; it was in cylinders and was used for welding. The head of the shop was unknown; no prisoners worked there and only 60 to 80 free workers.
13. The field laboratory (ekspress-laboratoriya) was headed by a woman, Darya Ossipovna Rikova. It employed about 20 people but as a rule no prison labor. [redacted] 25X1

[redacted] Several chemical engineers worked in the laboratory, among them Mariya Petrovna Kissilova, a convinced Communist who was deputy to Rikova; Trusov (fnu), a Soviet engineer, and Schulz (fnu), a German engineer. There was one chemical assistant, a technician, Irina Yakovlina Vodyanova, who was a member of the Komsomol. The laboratory was divided into two sections, one for chemical analysis, the other for metallurgy. This laboratory made the steel analysis of all the products made at the mill. 25X1

14. The steel mill did not receive any ore, only scrap from old tractors and other equipment. Daily, two or three trucks brought this scrap from Magadan. Inside the factory grounds, there was a huge depot of scrap which source estimated at over one thousand tons.
15. There were three kinds of repairs at the factory: minor, medium, and major. Every year production was interrupted for 15-20 days, during which major repairs (kapitalnyy remont) were made. The factory normally works throughout the year without interruptions in winter.
16. There were no interruptions of the electric current at the steel mill except during repair periods, which also affected the power station. The power lines were underground and carried in big pipes. These pipes were above ground only along the bridge over the Orotukan River, where they could easily be seen.
17. Most of the mill's products were sent to mines in the Kolyma region. [redacted] 25X1
[redacted] some spare parts in a wooden box 25X1
which had an address in Chukotskiy. [redacted] 25X1
[redacted] 25X1
18. There were about 12 gold ore washing machines (portable) which could also be used for cassiterite ore in the storage yard of the steel mill at Orotukan. [redacted] 25X1
[redacted] (See sketch of machine on page 7.) This apparatus consists principally of a cylinder about 1 meter in diameter and 3.5-4 meters long, which revolves about a tube with a perforated nozzle. Apparently, the ore is loaded by wheelbarrow via the loading [redacted] 25X1

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ramp (1) into the inner tube through the opening (2). Water is added by means of the hose and valve (3), electric power applied to the motor-drive assembly (6) which turns the drum, and the combination of water and revolving action separates the metal from the earth and rock. The metal is drained off into the box (5) while the debris spills out of the perforations in the nozzle (4) of the inner tube. The whole device was mounted on sled-runners and could be moved to the source of the ore.

Wages

19. Until May 1952, prisoners received no pay. After that, some money was paid for work in factories, but there was a complicated system of deductions and withholding of money for the prisoner's personal fund. [redacted] If a prisoner was to be paid 800 rubles per month for work in the mill, that sum was sent by the plant director to the camp administration in the prisoner's name. Half the sum was set aside for the Government. From the remaining 400 rubles, about half would be retained by the camp to cover the expenses of food and clothing. The rest was normally paid in installments at the end of a ten-day period, when the prisoners were paid. In this example, 100 rubles would be paid at the end of the first ten days of the month, 100 rubles after 20 days, and nothing at the end of the month. On the average, prisoners got about 100 to 150 rubles per month. [redacted]

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20. Many prisoners stayed on as free workers after they had completed their sentence. The average pay for such workers was about one thousand rubles per month.
21. Really free workers were people who came voluntarily from other parts of the USSR to work in Dalstroy. They normally signed a three-year contract with the Government and got extra pay at the following rates: First year - 20 percent extra; second year - 50 percent extra; third year - 100 percent extra. In other words, contract workers (dogovochnik), during their third year, got double pay. When they had completed their contract, they got ten months' free vacation. Darya Rikova, Mariya Kissilova, Irina Vodyanova, women who worked in the laboratory, were contract workers. Rikova and Vodyanova were married, and their husbands worked in other parts of the factory. Chemical Engineer Trusov was also a contract worker.

Work Schedule

22. Work at the factory was normally eight hours in three shifts. In this case, prisoners worked without interruption and without food, except what they might have taken along personally, until they returned to the camp. After the death of Stalin, in spring 1953, the work schedule was ten hours, with one and a half hours' interruption. The prisoners used to say that no more work was done but that this was a measure to keep them under control.

Security

23. Prisoners were led from the camp to the factory under escort by soldiers and dogs. On leaving camp, the roster reader (naryadchik) had a box with individual cards of the prisoners. As the name of each prisoner was called, the card was pulled out and put to one side for control on his return. At the factory gate, the prisoners were let in by the guard in groups of five. Once inside the gate, each prisoner was free to go to his particular place of work.
24. All political prisoners had a number which appeared both on their caps and on their backs, [redacted]

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25. The steel mill, like all prisoner camps, was surrounded by a triple fence. The first and the third were barbed wire fences, about 1.50 meters high, with some cross wire. The second, or main fence, was a wooden board fence, about three meters high, topped by about 50 centimeters of barbed wire with about 10 centimeters between the strands. The boards were uneven, about 10 centimeters wide on the average, and stood upright. There were also crossboards. The wire at the top of the board fence was set at an angle, leaning inside the grounds. At each of the four corners there was a searchlight, mounted on a tower, and there were smaller electric lights along the fence. There were only two entrances to the plant, one for trucks and the prisoners, the other for the free workers. There were sentinel boxes for the guards.

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Legend for Sketch Map of Orotukan Steel Mill

The sketch is divided into three sections:

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- A. Prison camp - scale: 1 inch equals 150 meters.
- B. Town of Orotukan - scale: 1 inch equals 150 meters.
- C. Orotukan Steel Mill - scale: 1 inch equals 10 meters.

A. Prison Camp

- 1. Mess hall.
- 2. Hospital: 20 beds; three doctors (one free, two prisoners); one feldsher, free; two or three male prisoner nurses.
- 3. Six barracks for prisoners.
- 4. Camp prison: Solitary (kartser) and tough brigade (BUR-brigada usilen-nogo rezhima).

B. Town of Orotukan

- * Barracks (kazarma): Estimated force: one regiment (polk) of MVD guards for camp and factory.
- 1. Club with movies, library, and game rooms for free workers and soldiers.
- 2. Food depot for guards, camp, and free workers: Size: 15x20 meters; one-story wood structure, with four watchtowers.
- 3. Motor pool and service garage for trucks (avtopark).
- 4. Power station serving mill: Thermal plant, using Diesel fuel; 4,000-kilowatt capacity in 1953. By 1954, new construction was to give the station 10,000-kilowatt capacity.
- 5. Wooden bridge: Wide enough for two trucks; length: 16 meters.
- 6. Orotukan River: Average width: 20-25 meters; in spring, up to 30 meters; average depth: 50 to 80 centimeters; frozen from September to April. In winter, prisoners were led across the frozen river when going to work in the factory.
- 7. Public restaurant: Used by free workers.
- 8. Bank, post, and telegraph and telephone building.
- 9. Ten-year school.
- 10. Steel mill.
- 11. Main highway (tsentralnaya trassa) from Strelka (N 61-52, E 152-15), through Orotukan to Inaugirka.

C. The Steel Mill

- 1. Gate: Two guards who check on entrance of prison workers and trucks.
- 2a. Gate for free workers and plant officials.
- 2b. Office for the guards and control of entry records.
- 3. Road inside the mill grounds.
- 4a. Mechanical assembly shop.
- 4b. Office of the chief of the mechanical assembly shop.
- 5. Boiler shop: Three boilers heated with coal. Each boiler had a pressure of 11 atmospheres.
- 6. Factory railroad with small dumping cars for hauling scrap, lumber, etc.
- 7a. Until 1952, mess hall for free workers; after that date, designing section of mill; workers now eat in town restaurant.
- 7b. Office of the chief engineer.
- 8. Martin furnace.
- 9. Foundry.
- 9a. Office.
- 10. Cast iron shop.
- 11. Laboratory: Two-story building.
- 12. Blast furnace for pig iron (domennaya pech).
- 13. Showers for workers.

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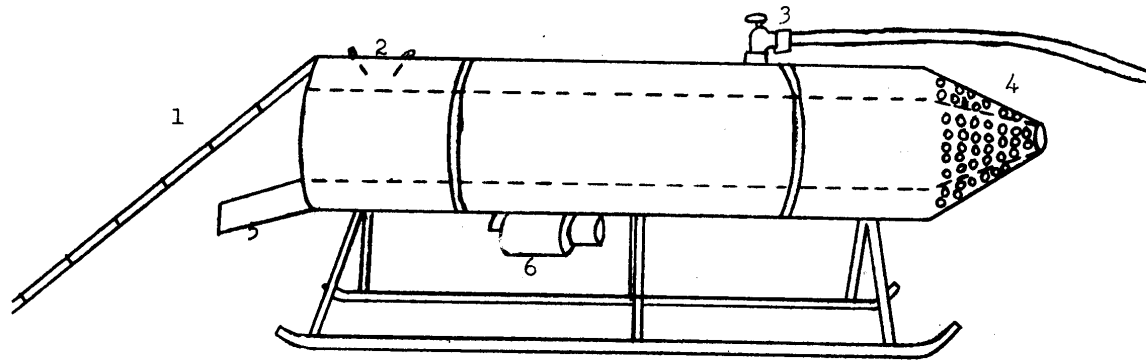
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14. Oil tanks: Capacity about 50 tons each. Tanks were seven to eight meters in diameter, about ten meters high, with storage below surface.
- 14b. Storeroom for manganese, quartz, and other supplies needed for Martin furnace.
15. Scrap iron deposit. Estimated at 1,000 tons; pile was about 60x20 meters long ^{UNCODED} wide and about ten meters high. There were two cranes on the rails, one on each side, to load the scrap on the railroad. 25X1
16. Electrical work shop and sub-sections: 16a copper wire pressing shop; 16b transformer shop; 16c insulation band shop.
17. Boiler shop: The boilers were at the corners, the steam hammers in the middle.
18. Showers (see also No. 13).
19. Steam pumps: Steam was used to heat the factory.
- 19a and b. Oxygen shops (kislород-stantsiya).
20. Air compressor shop: The compressed air was used for the Martin furnace and the pig iron shop.
21. Machine tool repair shop (TsRS) and instrument repair shop (RITs).
- 21a. Office.
- 21b. Office.
22. Depot for all products of the mill, i.e., spare parts manufactured.
23. Office for records on the storeroom of manufactured products.

ELECTRIC GOLD-WASHING MACHINE



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